

**INTERNATIONAL SEARCH REPORT**

International Application No  
PCT/DE2004/000906

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 A61F2/14 A61F2/16

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61F

Eingegangen  
Dr. C. Mayer-Roedern

20. DEZ. 2004

Anst:

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|----------|---|-----------------------|
| A        | US 4 911 715 A (KELMAN CHARLES D)<br>27 March 1990 (1990-03-27)<br>column 4, line 54 – column 5, line 14;<br>figures                                  | 1,2,4,5,<br>12        |
| A        | US 4 704 124 A (SHEARING STEVEN P)<br>3 November 1987 (1987-11-03)<br>column 3, line 18 – line 32; figures<br>column 4, line 64 – line 65             | 1,2,4,12              |
| A        | WO 98/56314 A (HERMEKING HEINO)<br>17 December 1998 (1998-12-17)<br>cited in the application<br>page 9, paragraph 3; claims 1,11,17;<br>figures 11,12 | 1,5,6,<br>9-11        |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

\*&\* document member of the same patent family

Date of the actual completion of the International search

20 October 2004

Date of mailing of the International search report

03/11/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patenttaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Neumann, E

**INTERNATIONAL SEARCH REPORT**

International Application No  
PCT/DE2004/000906

**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category | Citation of document, with indication, where appropriate, of the relevant passages                                       | Relevant to claim No. |
|----------|--|-----------------------|
| A        | US 5 628 797 A (RICHER HOMER E)<br>13 May 1997 (1997-05-13)<br>column 2, line 25 – column 3, line 8;<br>claim 1; figures | 1, 5                  |

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

|                              |  |
|------------------------------|--|
| International Application No |  |
| PCT/DE2004/000906            |  |

| Patent document cited in search report |   | Publication date | Patent family member(s)          |  | Publication date   |
|--|---|------------------|----------------------------------|--|--|
| US 4911715                             | A | 27-03-1990       | NONE                             |  |  |
| US 4704124                             | A | 03-11-1987       | US<br>US                         | 4657546 A<br>4725278 A   | 14-04-1987<br>16-02-1988   |
| WO 9856314                             | A | 17-12-1998       | DE<br>WO<br>DE<br>EP<br>JP<br>US | 19724539 A1<br>9856314 A1<br>59811687 D1<br>0920287 A1<br>2000516837 T<br>6221106 B1 | 17-12-1998<br>17-12-1998<br>26-08-2004<br>09-06-1999<br>19-12-2000<br>24-04-2001 |
| US 5628797                             | A | 13-05-1997       | NONE                             |  |  |

